



HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
3430 Courthouse Drive ♦ Ellicott City, Maryland 21043 ♦ 410-313-2350

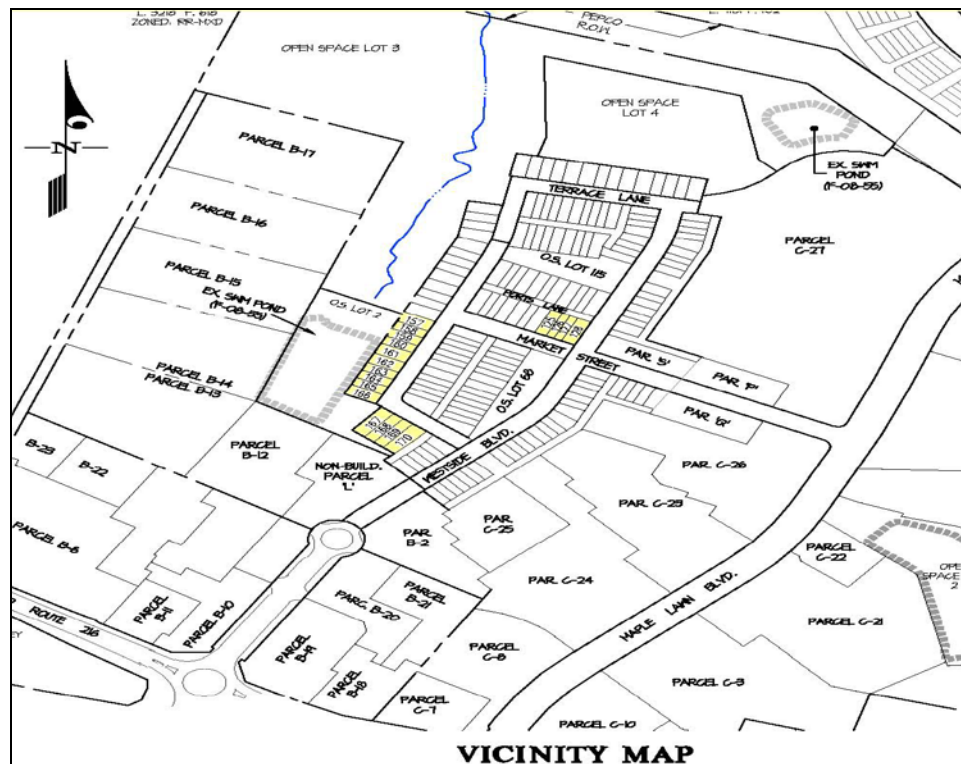
Marsha S. McLaughlin, Director

[www.co.ho.md.us](http://www.co.ho.md.us)  
FAX 410-313-3467  
TDD 410-313-2323

**TECHNICAL STAFF REPORT**  
**MAPLE LAWN FARMS**

**Planning Board Meeting of April 3, 2014**

- File No./Petitioner:** SDP-14-049 Williamsburg Group, LLC
- Project Name:** Maple Lawn Farms, Westside District, Area 4, Lots 125-128 and 157-170
- Request:** The request is for approval of a site development plan (SDP) for the construction of 18 single family attached (SFA) dwellings and other related site improvements in accordance with Section 127.0.F.1 of the Howard County Zoning Regulations. The site area for this SDP is approximately 1.64 acres of the 605.3 acre total tract area for Maple Lawn Farms and is zoned "MXD-3" (Mixed Use Development).
- Location:** The single family attached dwellings will be located along Market Street and Terrace Lane, west of Maple Lawn Boulevard and north of Route 216 (in the Westside District), identified on Tax Maps 41 and 46, Grid Nos. 3 and 21 in the Fifth Election District of Howard County, Maryland.
- DPZ Recommendation:** Approval, subject to compliance with any comments from the Planning Board. There were no outstanding comments received from reviewing agencies regarding this development proposal.



**Vicinal Properties:**

The 18 townhouse units will be located in the Westside District, Area 4, of the Maple Lawn Farms project and are surrounded by the following:

**North Side** - To the north of Lots 125-128 is Westside District Area 3 – a row of residential lots designated for townhome development.

**East Side** - To the east of this section of Westside Area 4 is Westside Boulevard.

**South Side** - To the south of Area 4 is the Maple Lawn Business District.

**West Side** - To the west is Open Space Lot 2.

**Site History:**

- **ZB Case No. 995M** for the establishment of the Maple Lawn Farms MXD Preliminary Development Plan and Development Criteria approved December 29, 2000 and the PDP documents were signed by the Zoning Board on February 8, 2001.
- **PB Case No. 353**, Comprehensive Sketch Plan and Development Criteria approved by the Planning Board on July 11, 2001.
- **S-01-17**, Sketch Plan for the entire Maple Lawn Farms MXD project received signature approval on August 1, 2001.
- **ZB Case No. 1039M** to establish the MXD District for the former Wessel and Oliver Properties and to amend the previously approved PDP for Maple Lawn Farms was approved on March 20, 2006.
- **PB Case No. 378**, Amended Comprehensive Sketch Plan and Development Criteria approved by the Planning Board on January 25, 2007.
- **S-06-16**, Amended Sketch Plan for the entire 605.3 acre Maple Lawn Farms MXD project received signature approval on February 20, 2007.
- **P-13-02**, Preliminary Plan to establish the Westside District, Area 4, received signature approval on April 11, 2013.
- **F-14-015**, Final Plan to establish the Westside District, Area 4, Lots 118-170, Open Space Lot 68, and Common Open Area Lots 171. *\* This plat has not been recorded as of the date of this staff report.*

**Site Analysis:**

**Site Improvements** - This SDP proposes the construction of 18 SFA residential dwelling units and other related site improvements. This SDP is designed in accordance with the "Traditional Neighborhood Design" (TND) concept with the townhouses fronting closely to the public streets to define an urban streetscape to promote pedestrian traffic within the community. On the north east side of Market Street, there are four (4) townhomes that will have detached garages at the rear of the lots served by a 16' wide paved private use-in-common alley. On the west side of Terrace Lane, there are ten (10) townhomes that will have attached garages facing Terrace Lane. On the south side of Terrace Lane, there are four (4) townhomes that will have attached garages facing Terrace Lane. Each of the SFA units will accommodate their required two off-street parking spaces within their garages. A total of 36 off-street parking spaces are required for these units (18 units x 2 spaces each) with 36 parking spaces provided within two car garages. In addition, there are un-striped on-street parking spaces provided for overflow and visitor parking within the nearby Terrace Lane and Market Street right of ways. *\* No parking is permitted within the private alley for the four townhomes on the north east side of Market Street.*

**Storm Water Management (SWM)** - Storm water management for this project is provided in regional SWM facilities constructed under Final Plans, F-05-012, F-08-055, and F-12-021.

**Environmental Considerations** - There are no 100 year flood plain, wetlands, streams or buffers located within the subject residential lots.

**Landscaping** - The Landscape Plan for this project complies with the alternative compliance provision of the Howard County Landscape Manual and the Maple Lawn Farms Landscape Design Criteria. The developer is providing the required shrubs (at a rate of 1 per 4 feet of lot width at BRL). A total of 137 shrubs and 7 ornamental flowering trees shall be planted along the fronts of the units and the sides of those units which are adjoining a public road.

**Forest Conservation** - This project previously addressed the forest conservation requirements of Section 16.1200 of the Howard County Code under the processing of Final Plan, F-08-054.

**Adequate Public Facilities** - This project passed the tests for road adequacy and open schools under the CSP, S-01-17 and Amended CSP, S-06-16.

**Development Criteria** – This SDP complies with all development criteria requirements approved under S-06-16 and PB Case No. 378. All proposed SFA dwellings and related improvements comply with the setback and height requirements that are outlined under the CSP, S-01-17 and the Amended CSP, S-06-16.

#### **Planning Board Criteria:**

This SDP is in compliance with the five criteria requirements of Section 127.0.F.2 of the Howard County Zoning Regulations for Planning Board approval of a site development plan as follows:

1. **Is consistent with the approved Preliminary Development Plan (PDP), Comprehensive Sketch Plan (CSP) and Development Criteria.**

The site design for the proposed SFA residential dwellings and associated site improvements are consistent with the approved PDP, CSP and Development Criteria requirements approved for this project. This SDP is also consistent with the purpose and design concept for a "Traditional Neighborhood Design" (TND) development.

2. **Satisfies the applicable requirements of Section 127.0.E.3 (Decision by the Planning Board for the CSP and Development Criteria).**

This SDP satisfies the requirements of Section 127.0.E.3 of the Zoning Regulations which describes the Planning Board's approval decision of the CSP and the Development Criteria. The Planning Board approved the amended CSP and Development Criteria under PB Case No. 378 by a Decision and Order dated January 25, 2007.

3. **Makes effective use of landscaping to provide buffers where needed and to enhance the site design.**

The home builder proposes to install enhanced landscaping for each of the SFA lots at or above what is mandated by the approved PDP, CSP, the Howard County Landscape Manual and the MLF Landscape Design Criteria. The MLF Landscape Design Criteria requires the planting of 1 shrub per 4 linear feet of lot width in the front yard and no landscaping in the side or rear yards, unless the lot is a corner lot facing a public street

where 1 shrub per 4 linear feet of side building length is required. The developer shall provide 137 shrubs and 7 flowering ornamentals to be located at the front and sides (where the side townhome abuts a public road). Therefore, together with the required streetscape planting along the public streets and the 137 shrubs and 7 ornamental flowering trees, the site design for the SFA lots will be enhanced.

**4. Provides squares, plazas or other useable landscaped areas within apartment developments, office developments or focal points.**

This SDP in conjunction with Final Plan, F-14-015, will provide the landscaping and other site amenities including street lighting, street trees and pedestrian sidewalks as part of the development of these townhouse units. A nearby community square/open space area (Open Space Lot 68) will be provided in accordance with the approved PDP, CSP and other future site development plans for this project.

**5. Implements the pedestrian circulation system for the MXD Use Development.**

This SDP in conjunction with approved Final Plan, F-14-015 and other approved or future SDP's will provide the pedestrian circulation system including sidewalks, pathways and crosswalks for the Westside District of Maple Lawn Farms. Sidewalks will be provided on both sides of all public streets adjacent to the proposed townhouse units in accordance with approved Final Plan, F-14-015 and this SDP.

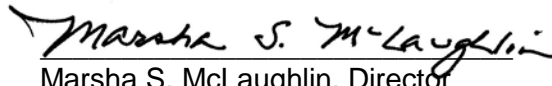
**SRC Action:**

On March 11, 2014, the Subdivision Review Committee (SRC) determined this SDP may be approved, subject to compliance with the SRC comments. The SRC comments primarily addressed the need to make minor drafting revisions to the SDP prior to signature approval by DPZ.

**Please note that this file is available for public review at the Department of Planning and Zoning's public service counter, Monday through Friday, 8:00 a.m. to 5:00 p.m.**

**Recommendation:**

The Department of Planning and Zoning recommends that the Planning Board approve this SDP, subject to the recordation of the final plat (F-14-015) and compliance with the SRC agency comments issued for SDP-14-049.

  
Marsha S. McLaughlin, Director  
Department of Planning and Zoning

3/24/14  
Date

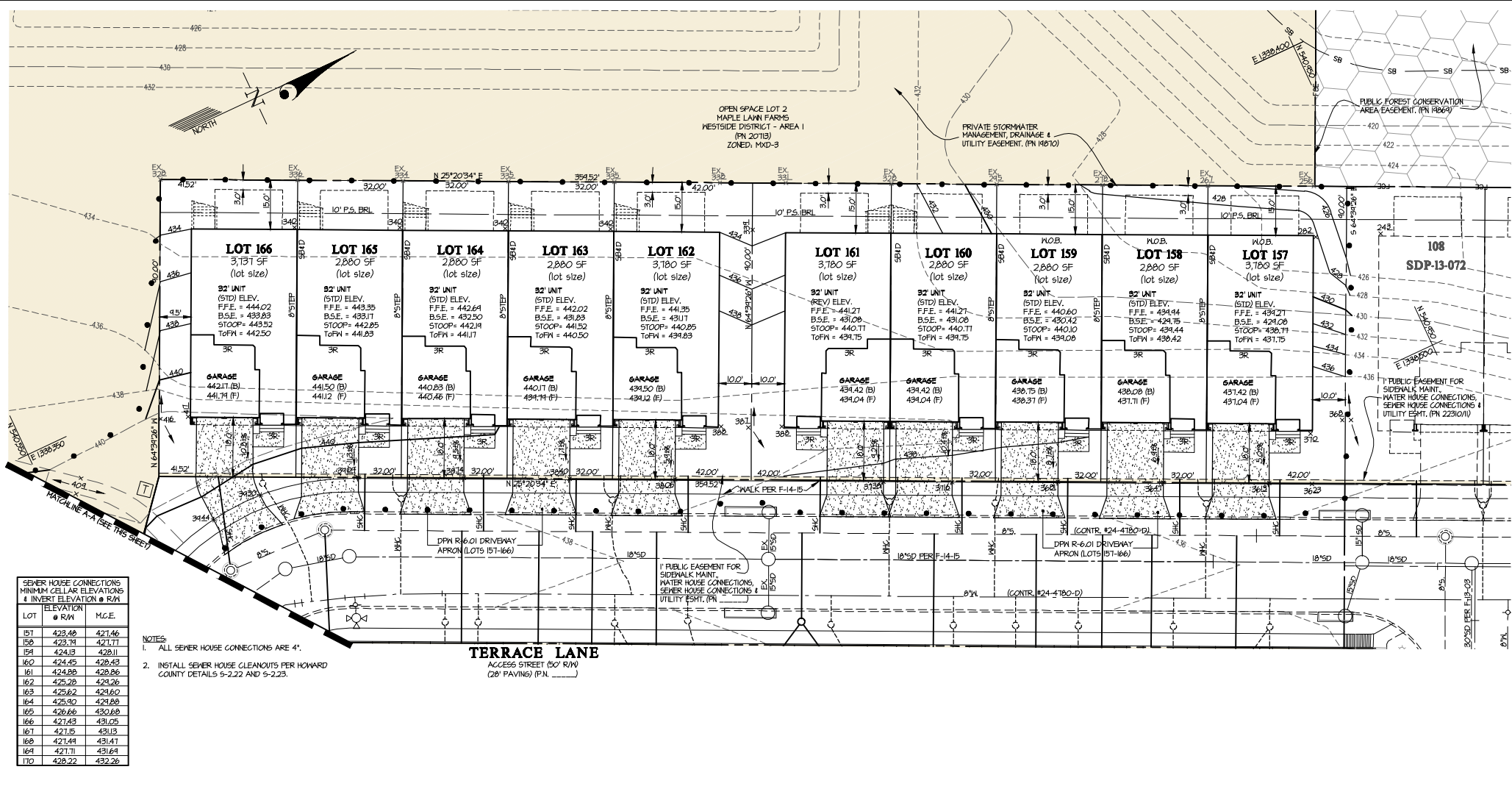
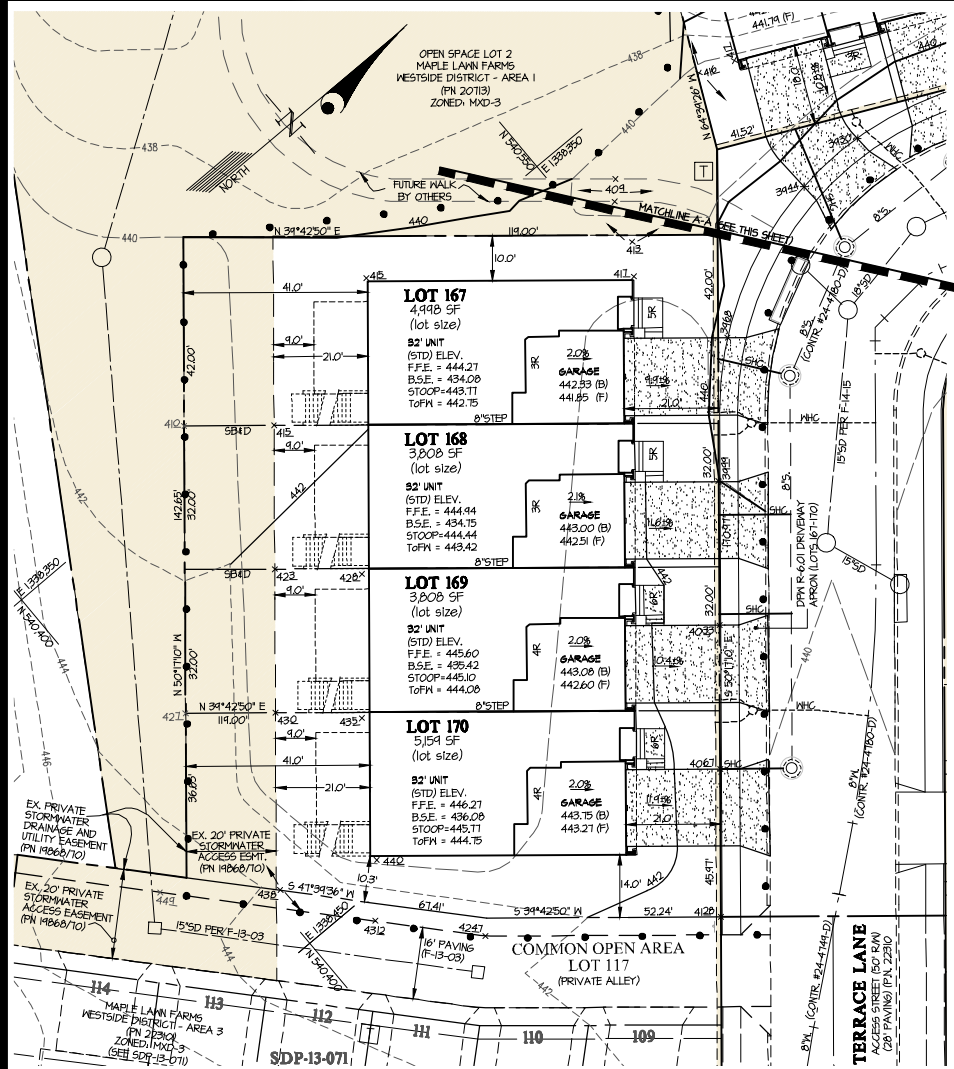
## Conceptual Site Plan







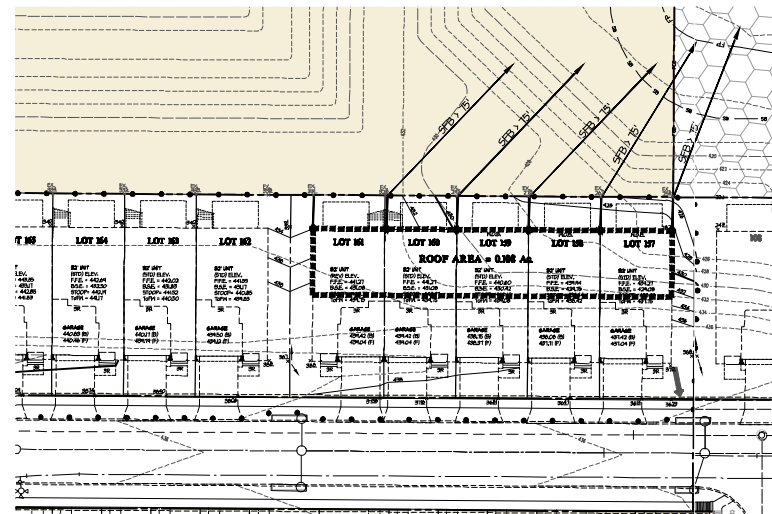
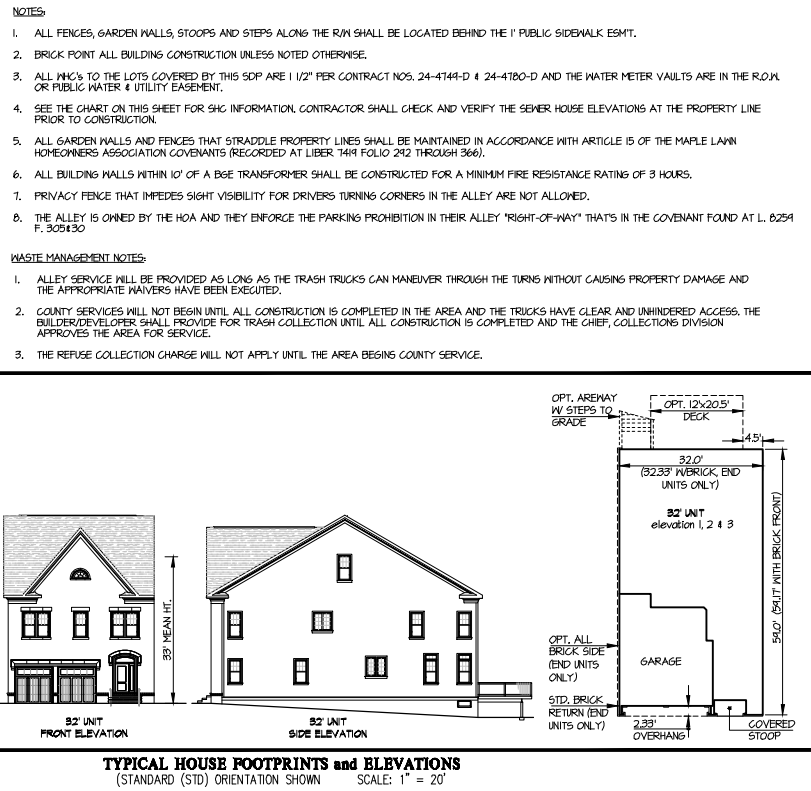




LOT	SEWER HOUSE CONNECTIONS MINIMUM CELLAR ELEVATIONS & INVERT ELEVATION @ R/W	M.C.E.
157	428.48	427.46
158	428.19	427.17
159	424.18	428.11
160	424.45	428.43
161	424.88	428.26
162	425.28	428.26
163	425.62	428.60
164	425.90	428.88
165	426.66	430.68
166	427.49	431.05
167	427.15	431.13
168	427.41	431.41
169	427.71	431.64
170	428.22	432.26

- NOTES:
- ALL SEWER HOUSE CONNECTIONS ARE 4".
  - INSTALL SEWER HOUSE CLEANOUTS PER HOWARD COUNTY DETAILS 5-2.22 AND 5-2.23.

PLAN VIEW SCALE: 1"=20'



NOTE: FOR LOTS 157-161, DRAIN ALL FRONT DOWN SPOUTS TO THE STREET.

SHEET FLOW TO BUFFER ANALYSIS SCALE: 1"=40'

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12015, EXPIRATION DATE: MAY 26, 2014.

APPROVED  
PLANNING BOARD OF HOWARD COUNTY

Date: \_\_\_\_\_

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director \_\_\_\_\_ Date \_\_\_\_\_

Chief, Division of Land Development \_\_\_\_\_ Date \_\_\_\_\_

Chief, Development Engineering Division \_\_\_\_\_ Date \_\_\_\_\_

**GLWGUTSCHICK LITTLE & WEBER, P.A.**

CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
BURTONSVILLE, MARYLAND 20866  
TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE: \_\_\_\_\_ REVISION: \_\_\_\_\_ BY: \_\_\_\_\_ APPR: \_\_\_\_\_

PREPARED FOR:

PROPERTY OWNER (SELLER):  
MAPLE LAWN FARMS I, LLC  
1829 REISTERSTOWN ROAD, SUITE 300  
BALTIMORE, MD 21208  
PH: 410-484-8400  
ATTN: MARK BENNETT

BUILDER (CONTRACT PURCHASER):  
WILLIAMSBURG GROUP, LLC  
5485 HARRIS FARM ROAD, SUITE 200  
COLUMBIA, MD 21044  
PH: 410-997-8800  
ATTN: BOB CORRETT

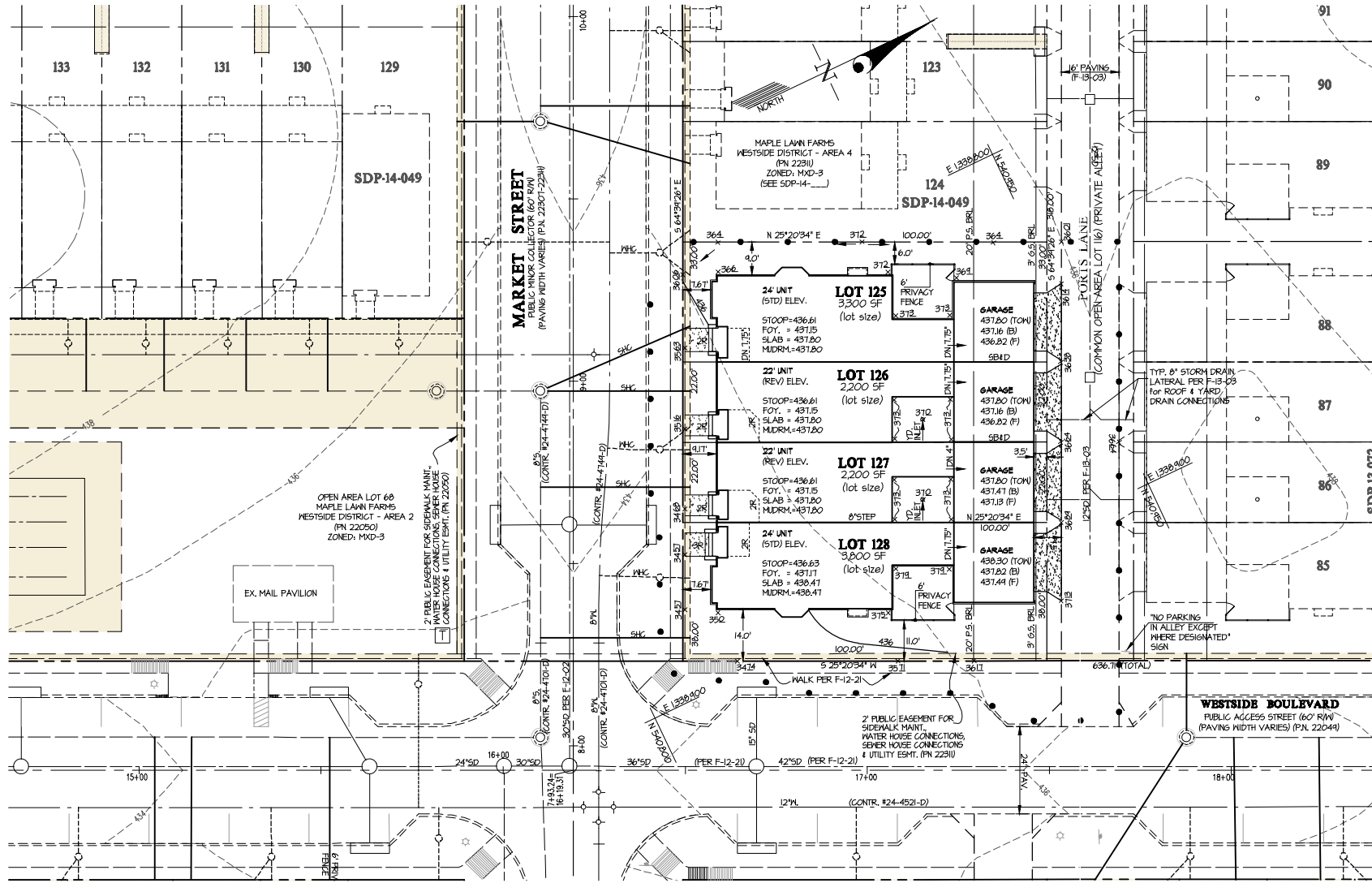
SITE DEVELOPMENT PLAN

**MAPLE LAWN FARMS**  
WESTSIDE DISTRICT - AREA 4  
LOT Nos. 125-128 and 157-170  
(SRA RESIDENTIAL USE)  
PLAT No. 19670 and \_\_\_\_\_

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	MXD-3	12030
DATE	TAX MAP - GRID	SHEET
JAN./2014	41-21/46-3	2 OF 5

HOWARD COUNTY, MARYLAND

ELECTION DISTRICT No. 5



LOT	ELEVATION @ R/W	H.C.E.
125	425.06	425.66
126	425.06	425.66
127	424.40	425.00
128	425.01	421.21

- NOTES:
- ALL SEWER HOUSE CONNECTIONS ARE 4".
  - INSTALL SEWER HOUSE CLEANOUTS PER HOWARD COUNTY DETAILS 5-2.22 AND 5-2.23.



#### SITE DEVELOPMENT PLAN LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- LIMIT OF GRADING DISTURBANCE
- EXISTING PAVING
- EXISTING CURB & GUTTER
- METER VAULT
- 1 1/2" WATER HOUSE CONNECTION (HMC, DASHED LINE TYP.)
- WATER LINE (PUBLIC)
- FIRE HYDRANT
- EXISTING SEWER MAIN (DASHED LINE)
- SEWER HOUSE CONNECTION (SHC, SOLID LINE)
- EXISTING STORM DRAIN
- EXISTING LIGHT POLE

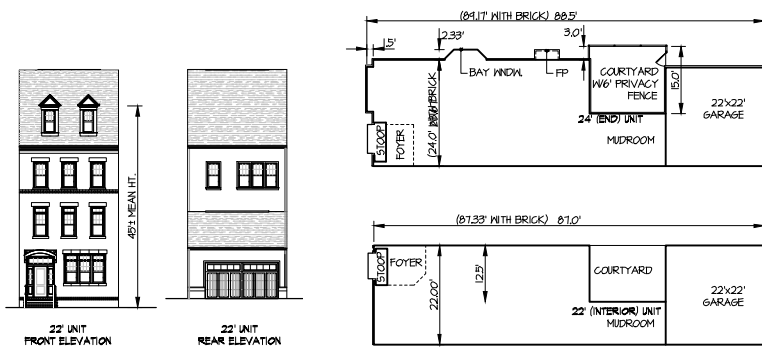
- CONCRETE SIDEWALK PER HO. CO. DET. R-3.05
- PROPOSED HOUSE
- PFE = FINISHED FLOOR ELEVATION
- BSE = BASEMENT F.F.E. ELEVATION
- REV = REVERSED HOUSE ORIENTATION
- GAR = GARAGE (F-FRONT, B-BACK)
- TOM = TOP OF FOUNDATION WALL
- FOY = FOYER
- MUDRM = MUD-ROOM
- P.S. BRL = PRINCIPAL STRUCTURE BRL
- G.S. BRL = GARAGE STRUCTURE BRL
- SB4D = SAME BEARING & DISTANCE
- FOREST CONSERVATION EASEMENT
- BGE TRANSFORMER PAD
- VERIZON EQUIPMENT (H# & FP)
- COMCAST EQUIPMENT

#### NOTES:

- ALL FENCES, GARDEN WALLS, STOOPS AND STEPS ALONG THE R/W SHALL BE LOCATED BEHIND THE 1' PUBLIC SIDEWALK ESMT.
- BRICK POINT ALL BUILDING CONSTRUCTION UNLESS NOTED OTHERWISE.
- ALL HMC'S TO THE LOTS COVERED BY THIS SDP ARE 1 1/2" PER CONTRACT Nos. 24-4144-D & 24-4180-D AND THE WATER METER VAULTS ARE IN THE R.O.M. OR PUBLIC WATER & UTILITY EASEMENT.
- SEE THE CHART ON THIS SHEET FOR SHC INFORMATION. CONTRACTOR SHALL CHECK AND VERIFY THE SEWER HOUSE ELEVATIONS AT THE PROPERTY LINE PRIOR TO CONSTRUCTION.
- ALL GARDEN WALLS AND FENCES THAT STRADDLE PROPERTY LINES SHALL BE MAINTAINED IN ACCORDANCE WITH ARTICLE 15 OF THE MAPLE LAWN HOMEOWNERS ASSOCIATION COVENANTS (RECORDED AT LIBER 7419 FOLIO 212 THROUGH 366).
- ALL BUILDING WALLS WITHIN 10' OF A BGE TRANSFORMER SHALL BE CONSTRUCTED FOR A MINIMUM FIRE RESISTANCE RATING OF 3 HOURS.
- PRIVACY FENCE THAT IMPEDES SIGHT VISIBILITY FOR DRIVERS TURNING CORNERS IN THE ALLEY ARE NOT ALLOWED.
- THE ALLEY IS OWNED BY THE HOA AND THEY ENFORCE THE PARKING PROHIBITION IN THEIR ALLEY "RIGHT-OF-WAY" THAT'S IN THE COVENANT FOUND AT L. 8254 F. 305430

#### WASTE MANAGEMENT NOTES:

- ALLEY SERVICE WILL BE PROVIDED AS LONG AS THE TRASH TRUCKS CAN MANEUVER THROUGH THE TURNS WITHOUT CAUSING PROPERTY DAMAGE AND THE APPROPRIATE WAIVERS HAVE BEEN EXECUTED.
- COUNTY SERVICES WILL NOT BEGIN UNTIL ALL CONSTRUCTION IS COMPLETED IN THE AREA AND THE TRUCKS HAVE CLEAR AND UNHINDERED ACCESS. THE BUILDER/DEVELOPER SHALL PROVIDE FOR TRASH COLLECTION UNTIL ALL CONSTRUCTION IS COMPLETED AND THE CHIEF, COLLECTIONS DIVISION APPROVES THE AREA FOR SERVICE.
- THE REFUSE COLLECTION CHARGE WILL NOT APPLY UNTIL THE AREA BEGINS COUNTY SERVICE.

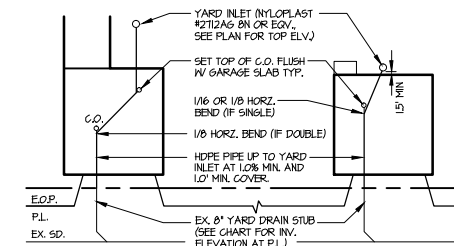


TYPICAL HOUSE FOOTPRINTS and ELEVATIONS  
(STANDARD (STD.) ORIENTATION SHOWN) SCALE: 1" = 20'



- NOTES:
- UNLESS SHOWN OTHERWISE, INSTALL EXPANSION JOINTS AT MAX. 20'-0" O.C.
  - PROVIDE 1/2" PREFORMED BITUMINOUS EXPANSION JOINT WHERE THE DRIVEWAY APRON ABUTS OTHER CONCRETE STRUCTURES OR PAVEMENTS.
  - FOR REFERENCE; SEE HOWARD COUNTY STD. DETAILS R6-01-6.04.
  - FOR BITUMINOUS PAVING, SEE HOWARD COUNTY STD. DETAIL R2-01 (P-1 SECTION).

#### CONCRETE DRIVEWAY and APRON PAVEMENT SECTION NO SCALE



NOTE: CONTRACTOR SHALL COORDINATE YARD DRAIN ALIGNMENT WITH BUILDING CONSTRUCTION.

#### TYPICAL YARD DRAIN INSTALLATION NO SCALE

#### PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12175, EXPIRATION DATE: MAY 26, 2014.

#### APPROVED PLANNING BOARD OF HOWARD COUNTY

Date: \_\_\_\_\_

#### APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director \_\_\_\_\_ Date \_\_\_\_\_

Chief, Division of Land Development \_\_\_\_\_ Date \_\_\_\_\_

Chief, Development Engineering Division \_\_\_\_\_ Date \_\_\_\_\_

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DATE: \_\_\_\_\_ BY: \_\_\_\_\_ APPR: \_\_\_\_\_

REVISION

BY

APPR.

#### PREPARED FOR:

PROPERTY OWNER (SELLER):  
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1829 REISTERSTOWN ROAD, SUITE 300  
BALTIMORE, MD 21208  
PH: 410-484-8400  
ATTN: MARK BENNETT

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WILLIAMSBURG GROUP, LLC  
5485 HARRIS FARM ROAD, SUITE 200  
COLUMBIA, MD 21044  
PH: 410-997-8800  
ATTN: BOB CORRETT

#### SITE DEVELOPMENT PLAN

#### MAPLE LAWN FARMS

WESTSIDE DISTRICT - AREA 4  
LOT Nos. 125-128 and 157-170  
(SRA RESIDENTIAL USE)  
PLAT Nos. 19670 and \_\_\_\_\_

SCALE AS SHOWN

ZONING

MXD-3

G. L. W. FILE No.

12030

DATE

JAN./2014

TAX MAP - GRID

41-21/46-3

SHEET

3 OF 5

HOWARD COUNTY, MARYLAND

ELECTION DISTRICT No. 5



## B-4-2 STANDARD AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

DEFINITION
THE PROCESS OF PREPARING THE SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION.
PURPOSE
TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH.
CONDITIONS WHERE PRACTICE APPLIES
WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED.
CRITERIA

### A. SOIL PREPARATION

1. TEMPORARY STABILIZATION
  - a. SEEDED PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISC HARROWS OR CHISEL PLOWS OR RIPPERS MOUNTED ON CONSTRUCTION EQUIPMENT. AFTER THE SOIL IS LOOSENED, IT MUST NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE ROUGHENED CONDITION. SLOPES 3:1 OR FLATTER ARE TO BE TRACKED WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.
  - b. APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE SOIL PREPARATION SUMMARY.
  - c. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
2. PERMANENT STABILIZATION
  - a. A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE:
    - i. SOIL PH BETWEEN 6.0 AND 7.0.
    - ii. SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM).
    - iii. SOIL CONTAINS LESS THAN 40 PERCENT CLAY BUT ENOUGH FINE GRAINED MATERIAL (GREATER THAN 30 PERCENT SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE. AN EXCEPTION: IF LOGGERS WILL BE PLANTED, THEN A SANDY SOIL (LESS THAN 30 PERCENT SILT PLUS CLAY) WOULD BE ACCEPTABLE.
  - b. SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT.
  - c. SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.
3. APPLICATION
  - a. APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE CONDITIONS.
  - b. GRADED AREAS MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES.
  - c. APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF A SOIL TEST.
  - d. MIX SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. MAKE LAWN AREAS TO SMOOTH THE SURFACE, REMOVE LARGE OBJECTS LIKE STONES AND BRANCHES, AND READY THE AREA FOR SEED APPLICATION. LOOSEN SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO ROUGHEN THE SURFACE WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDED PREPARATION. TRACK SLOPES AND ALL SLOPES GREATER THAN 3:1.
  - e. HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER).
    - i. IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES SHOULD NOT EXCEED THE FOLLOWING: NITROGEN, 100 POUNDS PER ACRE; TOTAL OF SOLUBLE NITROGEN, P205 (PHOSPHORUS), 200 POUNDS PER ACRE; K2O (POTASSIUM), 200 POUNDS PER ACRE.
    - ii. LIME: USE ONLY GRADED AGRICULTURAL LIMESTONE (UP TO 3 TONS PER ACRE MAY BE APPLIED BY HYDROSEEDING). NORMALLY, NOT MORE THAN 2 TONS ARE APPLIED BY HYDROSEEDING AT ANY ONE TIME. DO NOT USE BURNT OR HYDRATED LIME WHEN HYDROSEEDING.
    - iii. MIX SEED AND FERTILIZER ON SITE AND SEED IMMEDIATELY AND WITHOUT INTERRUPTION.
    - iv. WHEN HYDROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL.

### B. TOPSOILING

1. TOPSOIL IS PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION. THE PURPOSE IS TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRAIDATION.
2. TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-NRCS.
3. TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
  - a. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
  - b. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONSUMABLE SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
  - c. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
  - d. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
4. AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN.
5. TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING CRITERIA:
  - a. TOPSOIL MUST BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, OR LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. TOPSOIL MUST NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND MUST CONTAIN LESS THAN 5 PERCENT BY VOLUME OF CONCRETE, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1.5 INCHES IN DIAMETER.
  - b. TOPSOIL MUST BE FREE OF NOXIOUS PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACK GRASS, JOHNSON GRASS, NUT SEDGE, PISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
  - c. TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.
6. TOPSOIL APPLICATION
  - a. EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL.
  - b. UNIFORMLY DISTRIBUTE TOPSOIL IN A 5 TO 8 INCH LAYER AND LIGHTLY COMPACT TO A MINIMUM THICKNESS OF 4 INCHES. SPREADING IS TO BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM OTHER OPERATIONS MUST BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
  - c. TOPSOIL MUST NOT BE PLACED IF THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION. WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DEPENDANT TO PROPER GRADING AND SEEDED PREPARATION.
7. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)
  - a. SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OF 5 ACRES OR MORE. SOIL ANALYSIS MAY BE PERFORMED BY A RECOGNIZED PRIVATE OR COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSIS.
  - b. FERTILIZERS MUST BE UNIFORM IN COMPOSITION, FREE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROPRIATE EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL OF THE APPROPRIATE APPROVAL AUTHORITY. FERTILIZERS MUST ALL BE DELIVERED TO THE SITE FULLY LABELED ACCORDING TO THE APPLICABLE LAWS AND MUST BEAR THE NAME, TRADE NAME OR TRADEMARK AND WARRANTY OF THE PRODUCER.
  - c. LIME MATERIALS MUST BE GROUND LIMESTONE (HYDRATED OR BURNT LIME) MAY BE SUBSTITUTED EXCEPT WHEN HYDROSEEDING WHICH CONTAINS AT LEAST 50 PERCENT TOTAL OXIDE (CALCIUM OXIDE PLUS MAGNESIUM OXIDE). LIMESTONE MUST BE GROUND TO SUCH FINENESS THAT AT LEAST 50 PERCENT WILL PASS THROUGH A #100 MESH SIEVE AND 100 PERCENT WILL PASS THROUGH A #20 MESH SIEVE.
  - d. LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. WHERE THE SUBSOIL IS EITHER THE HEAVILY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE RATE OF 4 TO 8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL.

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4. LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. WHERE THE SUBSOIL IS EITHER THE HEAVILY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE RATE OF 4 TO 8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL.

## GRAPHIC SCALE



## APPROVED PLANNING BOARD OF HOWARD COUNTY

Date: \_\_\_\_\_

## APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director Date \_\_\_\_\_

Chief, Division of Land Development Date \_\_\_\_\_

Chief, Development Engineering Division Date \_\_\_\_\_

## GLWGUTSCHICK LITTLE & WEBER, P.A.

CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
3909 NATIONAL DRIVE - SUITE 250 - BURTONTVILLE OFFICE PARK  
BURTONTVILLE, MARYLAND 20866  
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

L:\000\DRAWINGS\000\1000\100\PLANS BY GUY\SP (AREA 4)\000\000.DWG (area 4) DES. mbl. DRN. jkl. CHK. mbl.

## B-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

DEFINITION
THE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER.
PURPOSE
TO PROTECT DISTURBED SOILS FROM EROSION DURING AND AT THE END OF CONSTRUCTION.
CONDITIONS WHERE PRACTICE APPLIES
TO THE SURFACE OF ALL PERMETER CONTROLS, SLOPES, AND ANY DISTURBED AREA NOT UNDER ACTIVE GRADING.
CRITERIA

### A. SEEDING

1. SPECIFICATIONS
  - a. ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED MUST BE SUBJECT TO RE-TESTING BY A RECOGNIZED SEED LABORATORY.
  - b. ALL SEED MUST HAVE BEEN TESTED WITHIN THE 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SOWING SUCH MATERIAL ON ANY PROJECT. REFER TO TABLE B-4 REGARDING THE QUALITY OF SEED. SEED TAGS MUST BE AVAILABLE UPON REQUEST TO THE INSPECTOR TO VERIFY TYPE OF SEED AND SEEDING RATE.
  - c. MULCH ALONE MAY BE APPLIED BEFORE THE FALL AND SPRING SEEDING DATES ONLY IF THE GROUND IS FROZEN. THE APPROPRIATE SEEDING MIXTURE MUST BE APPLIED WHEN THE GROUND THAW.
  - d. INOCULANTS: THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE A PURE CULTURE OF NITROGEN FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS MUST NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. AS FRESH INOCULANTS AS POSSIBLE. FRESH PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING. NOTE: IT IS VERY IMPORTANT TO KEEP INOCULANT AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75 TO 80 DEGREES FAHRENHEIT CAN KILL BACTERIA AND MAKE THE INOCULANT LESS EFFECTIVE.
  - e. SOIL OR SEED MUST NOT BE PLACED ON WOOD WHICH HAS BEEN TREATED WITH STERILANTS OR CHEMICALS USED FOR WOOD CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.
2. APPLICATION
  - a. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.
    - i. INCORPORATE SEED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON TEMPORARY SEEDING TABLE B.1. PERMANENT SEEDING TABLE B.3. OR SITE-SPECIFIC SEEDING SUMMARIES.
    - ii. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION. ROLL THE SEEDED AREA WITH A WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL CONTACT.
  - b. DRILL OR OUTLIPPER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL.
    - i. OUTLIPPER SEEDERS ARE REQUIRED TO BURY THE SEED IN SUCH A FASHION AS TO PROVIDE AT LEAST 1/4 INCH OF SOIL COVERING. SEEDED MUST BE FIRM AFTER PLANTING.
    - ii. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.
  - c. HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER).
    - i. IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES SHOULD NOT EXCEED THE FOLLOWING: NITROGEN, 100 POUNDS PER ACRE; TOTAL OF SOLUBLE NITROGEN, P205 (PHOSPHORUS), 200 POUNDS PER ACRE; K2O (POTASSIUM), 200 POUNDS PER ACRE.
    - ii. LIME: USE ONLY GRADED AGRICULTURAL LIMESTONE (UP TO 3 TONS PER ACRE MAY BE APPLIED BY HYDROSEEDING). NORMALLY, NOT MORE THAN 2 TONS ARE APPLIED BY HYDROSEEDING AT ANY ONE TIME. DO NOT USE BURNT OR HYDRATED LIME WHEN HYDROSEEDING.
    - iii. MIX SEED AND FERTILIZER ON SITE AND SEED IMMEDIATELY AND WITHOUT INTERRUPTION.
    - iv. WHEN HYDROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL.

### B. MULCHING

1. MULCH MATERIALS (IN ORDER OF PREFERENCE)
  - a. STRAW CONSISTING OF THOROUGHLY THRESHED WHEAT, RYE, OAT, OR BARLEY AND REASONABLY BRIGHT IN COLOR. STRAW IS TO BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED IN THE MARYLAND SEED LAW AND NOT MUSTY, MOULDY, CAID, DECAYED, OR EXCESSIVELY DUSTY. NOTE: USE ONLY STERILE STRAW MULCH IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED.
  - b. WOOD CELLULOSE FIBER MULCH (WCFM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE.
    - i. WCFM IS TO BE DYED GREEN OR UNIFORM A GREEN DYE IN THE PACKAGE THAT WILL PROVIDE AN APPROPRIATE COLOR TO FACILITATE VISUAL INSPECTION OF THE UNIFORMITY SPREAD SLURRY.
    - ii. WCFM, INCLUDING DYE, MUST CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS.
    - iii. WCFM MATERIALS ARE TO BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE WOOD CELLULOSE FIBER MULCH WILL REMAIN IN UNIFORM SUSPENSION IN WATER UNDER AGITATION AND WILL BLEND WITH SEED, FERTILIZER AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY. THE MULCH MATERIAL MUST FORM A BLOTTER-LIKE GROUND COVER, ON APPLICATION, HAVING MOISTURE ABSORPTION AND PERCOLATION PROPERTIES AND MUST COVER AND HOLD GRASS SEED IN CONTACT WITH THE SOIL WITHOUT INHIBITING THE GROWTH OF THE GRASS SEEDS.
    - iv. WCFM MATERIAL MUST NOT CONTAIN ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BE PHYTO-TOXIC.
    - v. WCFM MUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER LENGTH OF APPROXIMATELY 10 MILLIMETERS, DIAMETER APPROXIMATELY 1 MILLIMETER, PH RANGE OF 4.0 TO 7.0, ASH CONTENT OF 1.6 PERCENT MAXIMUM AND WATER HOLDING CAPACITY OF 90 PERCENT MINIMUM.
2. APPLICATION
  - a. APPLY MULCH TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING.
  - b. WHEN STRAW MULCH IS USED, SPREAD IT OVER ALL SEEDED AREAS AT THE RATE OF 2 TONS PER ACRE TO A UNIFORM LOOSE DEPTH OF 1 TO 2 INCHES. APPLY MULCH AT AN UNIFORM DISTRIBUTION AND DEPTH SO THAT THE SOIL SURFACE IS NOT EXPOSED. WHEN USING A MULCH ANCHORING TOOL, INCREASE THE APPLICATION RATE TO 2.5 TONS PER ACRE.
  - c. WOOD CELLULOSE FIBER MULCH MUST BE APPLIED AT A NET DRY WEIGHT OF 1500 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER TO ATTAIN A MIXTURE WITH A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
  - d. SYNTHETIC BINDERS SUCH AS ASPHALT (ADRO-TACK), DCA-70, PETROSET, TERRA TAC II, TERRA MANUFACTURER, APPLICATION OF LIQUID BINDERS NEEDS TO BE HEAVIER AT THE EDGES WHERE WIND CATCHES MULCH. SUCH AS VALLEYS, DITCHES AND ON CRESTS OF BANKS. USE OF ASPHALT BINDERS IS STRICTLY PROHIBITED.
  - e. LIGHTWEIGHT PLASTIC NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. NETTING IS USUALLY AVAILABLE IN ROLLS 4 TO 15 FEET WIDE AND 300 TO 3,000 FEET LONG.

### PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12275, EXPIRATION DATE: MAY 26, 2014.

### ENGINEER'S CERTIFICATE

"I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

DATE \_\_\_\_\_

## B-4-4 STANDARDS AND SPECIFICATIONS FOR TEMPORARY STABILIZATION

DEFINITION
TO STABILIZE DISTURBED SOILS WITH VEGETATION FOR UP TO 6 MONTHS.
PURPOSE
TO USE FAST GROWING VEGETATION THAT PROVIDES COVER ON DISTURBED SOILS. CONDITIONS WHERE PRACTICE APPLIES EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR A PERIOD OF 6 MONTHS OR LESS. FOR LONGER DURATION OF TIME, PERMANENT STABILIZATION PRACTICES ARE REQUIRED.
CRITERIA

1. SELECT ONE OR MORE OF THE SPECIES OR SEED MIXTURES LISTED IN TABLE B.1 FOR THE APPROPRIATE PLANT HARDNESS ZONE (FROM FIGURE B.3), AND ENTER THEM IN THE TEMPORARY SEEDING SUMMARY BELOW ALONG WITH APPLICATION RATES, SEEDING DATES AND SEEDING DEPTHS. IF THIS SUMMARY IS NOT PUT ON THE PLAN AND COMPLETED, THEN TABLE B.1 PLUS FERTILIZER AND LIME RATES MUST BE PUT ON THE PLAN.
2. FOR SITES HAVING SOIL TESTS PERFORMED, USE AND SHOW THE RECOMMENDED RATES BY THE TESTING AGENCY. SOIL TESTS ARE NOT REQUIRED FOR TEMPORARY SEEDING.
3. WHEN STABILIZATION IS REQUIRED OUTSIDE OF A SECOND SEEDING, APPLY SEED AND MULCH OR STRAW MULCH ALONE AS PRESCRIBED IN SECTION B-4-3.A.1.B AND MAINTAIN UNTIL THE NEXT SEEDING SEASON.

TEMPORARY SEEDING SUMMARY						
HARDNESS ZONE: 6b					FERTILIZER RATE (10-10-10)	
SEED MIXTURE:						
No.	SPECIES	APPLICATION RATE (lb/ac.)	SEEDING DATES	SEEDING DEPTHS		
1	ANNUAL RYEGRASS	40 lb/ac	Mar. 1 to May 15, Aug. 1 to Oct. 15	0.5 INCHES	436 lb./ac. (10 lb./1,000 sf)	
2	PEARL MILLET	20 lb/ac	May 16 to July 31	0.5 INCHES		

### SEDIMENT CONTROL NOTES

1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTION, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION. (410-313-1855).
2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND REVISIONS THERETO.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
  - a. 3 CALENDAR DAYS FOR ALL PERMITS, SEDIMENT CONTROL STRUCTURES, DIKES, TRENCHES, SLOPES AND ALL SLOPES GREATER THAN 3:1.
  - b. 7 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
4. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. TEMPORARY SEEDING (Sec. B-4-4-1) AND MULCHING (Sec. B-4-3-3). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
5. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMANENT VEGETATION HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
6. SITE ANALYSIS:
 

LOTS 127-170	LOTS 128-128	TOTAL OF LOTS
TOTAL AREA OF SITE: 1,154 AC.	0,261 AC.	1,414 AC.
AREA DISTURBED: 1,344 AC.	0,321 AC.	1,664 AC.
AREA TO BE REEDED OR PAVED: 0,844 AC.	0,222 AC.	1,066 AC.
AREA TO BE VEGETATIVELY STABILIZED: 0,504 AC.	0,034 AC.	0,604 AC.
TOTAL CUT: 9834 CY	3044 CY	12,878 CY
TOTAL FILL: 9834 CY	3044 CY	12,878 CY
OFF-SITE WASTE/BORROW AREA LOCATION: NONE	NONE	NONE
7. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
8. ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
9. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
10. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO 3 PIPE LENGTHS OR THAT WHICH SHALL BE BACKFILLED AND STABILIZED BY THE END OF EACH WORK DAY, WHICHEVER IS SHORTER.
11. ANY CHANGES OR REVISIONS TO THE SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE PLAN APPROVAL AUTHORITY PRIOR TO PROCEEDING WITH CONSTRUCTION.
12. A PROJECT IS TO BE SEQUENCED SO THAT THE GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MAXIMUM AVERAGE OF 20 AC. PER GRADING UNIT) AT A TIME. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE ENFORCEMENT AUTHORITY. UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE APPROVAL AUTHORITY, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.

PERMANENT SEEDING SUMMARY			
HARDNESS ZONE: 6b			
No.	SPECIES	APPLICATION RATE	SEEDING DATES
9.	Certified Tall Fescue blend (55% by weight), Falcorn IV, Penn 1901 & Rebel Exotic and Certified Kentucky Bluegrass blend (55% by weight), Courtyard, Raven & Tanlee	6-8 lb/1000 s.f.	Mar. 1 to May 15, Aug. 15 to Oct. 15
* Other cultivars listed as "proven" in the most current UMD TT-77 may also be used			

1. GENERAL SPECIFICATIONS
  - a. CLASS OF TURFGRASS SOD MUST BE MARYLAND STATE CERTIFIED. SOD LABELS MUST BE MADE AVAILABLE TO THE JOB FOR THE USER.
  - b. SOD MUST BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF 3/4 INCH, PLUS OR MINUS 1/4 INCH, AT THE TIME OF CUTTING. MEASUREMENT FOR THICKNESS MUST EXCLUDE TOP GROWTH AT THATCH, BROKEN PADS OR TORN OR UNEVEN EDGES WILL NOT BE ACCEPTABLE.
  - c. STANDARD SIZE SECTIONS OF SOD MUST BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SHAPE AND SHAPE WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP ON THE UPPER 10 PERCENT OF THE SECTION.
  - d. SOD MUST NOT BE HARVESTED OR TRANSPORTED WHEN MOISTURE CONTENT (EXCESSIVELY DRY OR WET) MAY ADVERSELY AFFECT ITS SURVIVAL.
  - e. SOD MUST BE HARVESTED, DELIVERED AND INSTALLED WITHIN A PERIOD OF 36 HOURS. SOD NOT TRANSPORTED WITHIN THIS PERIOD MUST BE APPROVED BY AN AGRONOMIST OR SOIL SCIENTIST PRIOR TO ITS INSTALLATION.
2. SOD INSTALLATION
  - a. DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE OR IN AREAS HAVING DRY SUBSOIL, LIGHTLY IRRIGATE THE SODS, IMMEDIATELY PRIOR TO LAYING THE SODS.
  - b. LAY THE FIRST ROW OF SOD IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO IT AND TIGHTLY WEDGED AGAINST EACH OTHER. STAGGER LATERAL JOINTS TO PROMOTE MORE UNIFORM GROWTH AND STRENGTH. ENSURE THAT SOD IS NOT STRETCHED OR OVERLAPPED AND THAT ALL JOINTS ARE BUTTED TOGETHER IN ORDER TO PREVENT WINDS WHICH WOULD CAUSE AIR DRYING OF THE ROOTS.
  - c. WHEREVER POSSIBLE, LAY SOD WITH THE LONG EDGES PARALLEL TO THE CONTOUR AND WITH STAGGERED JOINTS. ROLL AND TAMP PEGS OR OTHERWISE SECURE THE SOD TO PREVENT SLIPPAGE ON SLOPES. ENSURE SOLID CONTACT EXISTS BETWEEN SOD ROOTS AND THE UNDERLYING SOIL SURFACE.
  - d. WATER THE SOD IMMEDIATELY FOLLOWING ROLLING AND TAMPING UNTIL THE UNDERSIDE OF THE NEW SOD PAD AND SOIL SURFACE BELOW THE SOD ARE THOROUGHLY WET. COMPLETE THE OPERATIONS OF LAYING, TAMPING AND IRRIGATING FOR ANY PIECE OF SOD WITHIN EIGHT HOURS.
3. SOD MAINTENANCE
  - a. IN THE ABSENCE OF ADEQUATE RAINFALL, WATER DAILY DURING THE FIRST WEEK OR AS OFTEN AND SUFFICIENTLY AS NECESSARY TO MAINTAIN MOIST TO A DEPTH OF 4 INCHES. WATER SOD DURING THE HEAT OF THE DAY TO PREVENT WILTING.
  - b. AFTER THE FIRST WEEK, SOD WATERING IS REQUIRED AS NECESSARY TO MAINTAIN ADEQUATE MOISTURE CONTENT.
  - c. DO NOT MOW UNTIL THE SOD IS FIRMLY ROOTED. NO MORE THAN 1/3 OF THE GRASS LEAF MUST BE REMOVED BY THE MOWER. CUTTING OR SUBSEQUENT CUTTINGS. MAINTAIN A GRASS HEIGHT OF AT LEAST 3 INCHES UNLESS OTHERWISE SPECIFIED.

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3. TOPSOIL MUST NOT BE PLACED IF THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION. WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DEPENDANT TO PROPER GRADING AND SEEDED PREPARATION.
4. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)
  - a. SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OF 5 ACRES OR MORE. SOIL ANALYSIS MAY BE PERFORMED BY A RECOGNIZED PRIVATE OR COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSIS.
  - b. FERTILIZERS MUST BE UNIFORM IN COMPOSITION, FREE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROPRIATE EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL OF THE APPROPRIATE APPROVAL AUTHORITY. FERTILIZERS MUST ALL BE DELIVERED TO THE SITE FULLY LABELED ACCORDING TO THE APPLICABLE LAWS AND MUST BEAR THE NAME, TRADE NAME OR TRADEMARK AND WARRANTY OF THE PRODUCER.
  - c. LIME MATERIALS MUST BE GROUND LIMESTONE (HYDRATED OR BURNT LIME) MAY BE SUBSTITUTED EXCEPT WHEN HYDROSEEDING WHICH CONTAINS AT LEAST 50 PERCENT TOTAL OXIDE (CALCIUM OXIDE PLUS MAGNESIUM OXIDE). LIMESTONE MUST BE GROUND TO SUCH FINENESS THAT AT LEAST 50 PERCENT WILL PASS THROUGH A #100 MESH SIEVE AND 100 PERCENT WILL PASS THROUGH A #20 MESH SIEVE.
  - d. LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. WHERE THE SUBSOIL IS EITHER THE HEAVILY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE RATE OF 4 TO 8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL.

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3. TOPSOIL MUST NOT BE PLACED IF THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION. WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DEPENDANT TO PROPER GRADING AND SEEDED PREPARATION.
4. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)
  - a. SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OF 5 ACRES OR MORE. SOIL ANALYSIS MAY BE PERFORMED BY A RECOGNIZED PRIVATE OR COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSIS.
  - b. FERTILIZERS MUST BE UNIFORM IN COMPOSITION, FREE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROPRIATE EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL OF THE APPROPRIATE APPROVAL AUTHORITY. FERTILIZERS MUST ALL BE DELIVERED TO THE SITE FULLY LABELED ACCORDING TO THE APPLICABLE LAWS AND MUST BEAR THE NAME, TRADE NAME OR TRADEMARK AND WARRANTY OF THE PRODUCER.
  - c. LIME MATERIALS MUST BE GROUND LIMESTONE (HYDRATED OR BURNT LIME) MAY BE SUBSTITUTED EXCEPT WHEN HYDROSEEDING WHICH CONTAINS AT LEAST 50 PERCENT TOTAL OXIDE (CALCIUM OXIDE PLUS MAGNESIUM OXIDE). LIMESTONE MUST BE GROUND TO SUCH FINENESS THAT AT LEAST 50 PERCENT WILL PASS THROUGH A #100 MESH SIEVE AND 100 PERCENT WILL PASS THROUGH A #20 MESH SIEVE.
  - d. LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. WHERE THE SUBSOIL IS EITHER THE HEAVILY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE RATE OF 4 TO 8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL.

## APPROVED PLANNING BOARD OF HOWARD COUNTY

Date: \_\_\_\_\_

## APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director Date \_\_\_\_\_

Chief, Division of Land Development Date \_\_\_\_\_



